

REMARKS

Claims 1, 3-12, 14 and 16-30 are pending in this application. By this Amendment, the specification, drawings and claims 1, 3, 6, 8-9, 12, 14, 16, 22-23 and 30 are amended. No new matter is added.

Applicants appreciate the courtesies extended to Applicants' representative during the interview with Examiner Burch on July 22, 2003. The record of the substance of the interview is incorporated below.

In paragraph 17, on page 14 of the Office Action, it was indicated that claim 1 would be allowable if rewritten to overcome the rejection under 35 U.S.C. §112, second paragraph. Applicants gratefully appreciate the indication of allowability and submit that claim 1 has been rewritten to overcome the rejection under 35 U.S.C. §112, second paragraph. Thus, claim 1 is now in condition for allowance.

In paragraph 18, on page 15 of the Office Action, claims 3-6, 12 and 23-28 would be allowable if rewritten to overcome the rejections under 35 U.S.C. §112, second paragraph, including all of the features of the base claim and any intervening claims. Applicants gratefully appreciate the indication of allowable subject matter found in claims 3-6, 12 and 23-28. However, it is respectfully submitted that claims 7-11, 14, 16-22, 29 and 30 are also allowable in view of the foregoing amendments and following remarks.

I. Formal Matters

Drawings

In paragraph 1, on page 2 of the Office Action, Figs. 5 and 14 in the drawings were objected to due to informalities.

In amended Fig. 5, the typographical errors "survo" and "leake" have been corrected.

In Fig. 14, the Examiner objected to the use of unknown symbol " \approx ". However, it is respectfully submitted that " \approx " is a universal mathematical symbol that signifies approximately equal to (e.g., " \approx ").

Thus, reconsideration and withdrawal of the objection are respectfully requested.

In paragraph 2, on page 2 of the Office Action, the drawings were objected to as failing to comply with 37 C.F.R. §1.184(p)(5).

In amended Fig. 1, reference numerals "12" has been added.

In regard to element numeral "11" and "14b", these element numerals have been deleted from the specification, which were previously added in reply to a prior Office Action and objected to subsequently.

Thus, reconsideration and withdrawal of the objection are respectfully requested.

In paragraph 3, on page 2 of the Office Action, the drawings were objected to as failing to comply with 37 C.F.R. §1.184(p)(5) because they include reference signs not mentioned in the specification. However, Applicants respectfully submit that reference signs "T", "S24" and " β " can be found in paragraphs [0065] and [0066]. Thus, reconsideration and withdrawal of the objection is respectfully requested.

In paragraph 4, on page 3 of the Office Action, the drawings were objected to as failing to comply with 37 C.F.R. §1.84(p)(4).

In amended Fig. 5, reference character "S21" has been amended to "S22", which is clearly described in paragraph [0064] in the specification.

In amended Fig. 2, the attraction force, the operating force, and the bias force has been amended as " F_1 ", " F_2 " and " F_3 ", respectively and amended in the specification in paragraphs [0017]-[0019] to correspond to the changes in Fig. 2.

Thus, withdrawal of the objection is respectfully requested.

In paragraph 5, on page 3 of the Office Action, the drawings were objected to under 37 C.F.R. §1.183(a).

With regard to the feature of the "two pressure chambers" in the master cylinder, it is respectfully submitted that claim 14 has been amended to obviate the objection. Further, support for the amendment can be found, for example, in paragraphs [0010] and [0013].

With regard to the "reservoir chamber", it is respectfully submitted that Fig. 1 clearly describes that the master reservoir 136 is larger than the pressure chamber 14.

With regard to the "bottoming condition detection", it is respectfully submitted that Fig. 12B clearly describes the bottoming condition based on the increasing gradient of the stroke.

Thus, reconsideration and withdrawal of the objection are respectfully requested.

Specification

In paragraph 7, on page 4 of the Office Action, the disclosure is objected to because of informalities. The Amendment is responsive to the objection. Thus, withdrawal of the objection is respectfully requested.

In paragraph 8, on page 4 of the Office Action, the specification is objected to for failing to provide proper antecedent basis for the claimed subject matter. However, Applicants respectfully submit that the term "leakage amount control device" in claims 6 and 11 can be found, for example, in paragraph [0138]. In regard to the term "a brake condition selection device", in claim 9, it can be found, for example, in paragraphs [0159] and [0160]. Thus, withdrawal of the objection is respectfully requested.

In paragraph 9, on page 4 of the Office Action, the specification has been rejected under 35 U.S.C. §112, first paragraph.

In amended paragraph [0054], this paragraph has been amended to obviate the rejection. In particular, paragraph [0054] describes that the bottoming condition may or may not occur due to fluid leakage.

Amended paragraph [0044] has been amended to remove the term "small amount fluid leakage failure".

Accordingly, it is respectfully requested the objection be withdrawn.

In paragraph 11, on page 5 of the Office Action, claims 1, 3-12, 14 and 16-30 were rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

The Amendment is in response to the rejection. In particular, claim 1 has been amended to reflect to claim 22; claim 3 has been amended to provide proper antecedent basis; claim 6 has been amended to recite that the pressure is from the master cylinder pressure detector; claim 8 has been amended to recite that the "master reservoir" compresses the operating fluid; claims 9 and 16 have been amended to reflect claim 22; claim 22 has been amended to provide the proper antecedent basis; claim 23 has been amended to provide the proper antecedent basis; claim 30 has been amended to be definite; claim 12 has been amended to recite that the master cylinder pressure detector detects the pressure in the master cylinder; and claim 14 has been amended to recite that the pressure chamber is the same earlier claimed pressure chamber.

Thus, reconsideration and withdrawal of the claim rejection are respectfully requested.

II. The Claims Define Patentable Subject Matter

In paragraph 13, on page 7 of the Office Action, claims 9, 14, 22, 29 and 30 were rejected under 35 U.S.C. §102(b) as being anticipated by JP-11227601 (English equivalent of U.S. Patent No. 6,276,763 to Isono et al.) (hereinafter "Isono '763"). In paragraph 14, on

page 10 of the Office Action, claims 9, 14, 22, 29 and 30 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,289,271 to Isono et al. (hereinafter "Isono '271"). These rejections are respectfully traversed.

Isono '763 and '271 fail to disclose or suggest a failure detector which detects and distinguishes between different types of abnormal failures of the brake device based on the pressure detected by the fluid source pressure detector and the operating amount detected by the brake operating amount detector, as recited in claim 9, and similarly recited in claims 22 and 30.

The Office Action alleges that Isono '763 and '271 disclose detecting a booster abnormal condition and booster not abnormal condition, which represents the first type of failure of the brake device and second type of failure of the brake device, respectively. However, it is respectfully submitted that the claimed invention determines two types of abnormal failure conditions, whereas Isono '763 and '271 disclose the detection of only a single abnormal condition and a normal condition.

Accordingly, Isono '763 and '271 fail to disclose or suggest a failure detector which detects and distinguishes between different types of abnormal failures of the brake device based on the pressure detected by the fluid source pressure detector and the operating amount detected by the brake operating amount detector, as recited in claim 9, and similarly recited in claims 22 and 30.

In paragraph 16, on page 12 of the Office Action, claims 10, 11 and 16-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Isono '763 in view of U.S. Patent No. 4,867,509 to Maehara et al. (hereinafter "Maehara"). The rejection is respectfully traversed.

As discussed above, Isono '763 and '271 fail to disclose or suggest the claimed invention as found in claims 9 and 16, the independent claims from which the rejected claims

depend. Maehara fails to overcome the noted deficiencies of Isono '763 and '271. Maehara merely discloses a bottoming switch 55 which turns ON when a stroke of the brake pedal exceeds a predetermined value (col. 5, lines 28-32). However, Applicants' claimed invention recite the bottoming detector that detects a bottoming condition in the master cylinder based on an increase in gradient of the brake operating amount. By having an increase in gradient of the brake operating amount, the brake device can detect the bottoming condition accurately by detecting rapid changes in the brake operating amounts. Thus, it is respectfully requested that the rejection be withdrawn.

For at least these reasons, Applicants respectfully submit that Isono '763, Isono '271 and Maehara, individually or in combination, fail to disclose, teach or suggest the features recited in independent claims 9, 16, 22 and 30. Claims 7-11, 14, 17-21 and 29, which depend from independent claims are likewise distinguished over the applied references for at least the reasons discussed above, as well as for the additional features they recite. Reconsideration and withdrawal of the rejections are respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3-12, 14 and 16-30 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:DJC/rle

Attachment:
Replacement Sheet

Date: July 25, 2003

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